

In response to the Office Action mailed June 23, 2000, the Examiner is respectfully requested to consider and enter the following amendments:

IN THE TITLE:

Please amend the title as follows:

--IMAGE FORMING APPARATUS WITH THREE LAYER
INTERMEDIARY TRANSFER MEMBER--.

IN THE CLAIMS:

Please amend Claims 1, 46, and 74, as follows. A marked-up version of Claims 1, 46, and 74, showing the changes being made thereto, is attached. Please note that all claims in this application are being reproduced below for the Examiner's convenience.

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1. (Twice Amended) An image forming apparatus comprising:
image bearing means for bearing a toner image;
an intermediary transfer member, wherein the toner image is electrostatically transferred from said image bearing means onto said intermediary transfer member, and then transferred from said intermediary transfer member onto a transfer material;
wherein said intermediary transfer member includes a first layer, a second layer on said first layer, and a third layer on said second layer, for receiving the toner image from said image bearing means, and

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wherein a volume resistivity of said first layer is smaller than that of said third layer, and a volume resistivity of said third layer is smaller than that of said second layer.

2. (Not Further Amended) An apparatus according to Claim 1, wherein the volume resistivity of said second layer is 10^{11} to 10^{15} Ohm.cm.
3. (Not Further Amended) An apparatus according to Claim 1, wherein the volume resistivity of said third layer is 10^{10} to 10^{14} Ohm.cm.
4. (Not Further Amended) An apparatus according to Claim 1, wherein the volume resistivity of said second layer is 10^{11} to 10^{15} Ohm.cm, and the volume resistivity of said third layer is 10^{10} to 10^{14} Ohm.cm.
5. (Not Further Amended) An apparatus according to any one of Claims 1-4, wherein said third layer has a thickness of 1-5 microns.
6. (Not Further Amended) An apparatus according to Claim 5, wherein said second layer has a thickness larger than that of said third layer.
7. (Unamended) An apparatus according to Claim 5, wherein a plurality of the toner images are transferred onto said intermediary member so that an overlaid toner image is

formed thereon, and the overlaid images are transferred from said intermediary transfer member onto the transfer material.

8. (Unamended) An apparatus according to Claim 7, wherein said image bearing means is provided with an image bearing member capable of bearing different color toner images.

9. (Unamended) An apparatus according to Claim 7, wherein said image bearing means is provided with a plurality of image bearing members for bearing different color images, respectively.

10. (Unamended) An apparatus according to Claim 5, further comprising transfer means for electrostatically transferring the toner image from said image bearing means onto said intermediary transfer member, wherein said transfer means applied a voltage to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

11. (Unamended) An apparatus according to Claim 10, wherein the voltage has a polarity opposite from a regular charging polarity of the toner.

12. (Unamended) An apparatus according to Claim 11, wherein said transfer means is provided with a voltage source for supplying the voltage.

13. (Unamended) An apparatus according to Claim 12, wherein said transfer means is provided with a roller contactable to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

14. (Unamended) An apparatus according to Claim 1 or 11, further comprising charging means for charging a surface of said image bearing means to a polarity which is the same as a regular charging polarity of the toner.

16. (Not Further Amended) An apparatus according to Claim 1, wherein said first layer is elastic.

17. (Not Further Amended) An apparatus according to Claim 16, wherein said first layer is a rubber layer.

18. (Unamended) An apparatus according to Claim 1, further comprising transfer means for electrostatically transferring the toner image from said image bearing means onto said intermediary transfer member, wherein said transfer means applied a voltage to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

19. (Unamended) An apparatus according to Claim 18, wherein the voltage has a polarity opposite from a regular charging polarity of the toner.

20. (Unamended) An apparatus according to Claim 19, wherein said transfer means is provided with a voltage source for supplying the voltage.

21. (Unamended) An apparatus according to Claim 20, wherein said transfer means is provided with a roller contactable to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

22. (Unamended) An apparatus according to Claim 1 or 19, further comprising charging means for charging a surface of said image bearing means to a polarity which is the same as a regular charging polarity of the toner.

23. (Unamended) An apparatus according to Claim 1, wherein said intermediary transfer member is in the form of a belt.

24. (Unamended) An apparatus according to Claim 23, further comprising supporting means for supporting said intermediary transfer member.

25. (Unamended) An apparatus according to Claim 24, wherein said supporting means is provided with a plurality of rollers.

26. (Unamended) An apparatus according to Claim 1, wherein a plurality of the toner images are transferred onto said intermediary transfer member so that an overlaid toner

image is formed thereon, and the overlaid images are transferred from said intermediary transfer member onto the transfer material.

27. (Not Further Amended) An apparatus according to Claim 26, wherein said image bearing means is provided with an image bearing member capable of bearing different color toner images.

28. (Not Further Amended) An apparatus according to Claim 26, wherein said image bearing means is provided with a plurality of image bearing members for bearing different color toner images, respectively.

29. (Not Further Amended) An intermediary transfer member onto which a toner image is electrostatically transferred from image bearing means, wherein the toner image on said intermediary transfer member is transferred onto a transfer material, said intermediary transfer member comprising:

a first layer;

a second layer, provided on said first layer; and

a third layer, provided on said second layer, for receiving the toner image from the image bearing means,

wherein a volume resistivity of said first layer is smaller than that of said third layer, and a volume resistivity of said third layer is smaller than that of said second layer.

30. (Not Further Amended) An intermediary transfer member according to Claim 29, wherein the volume resistivity of said second layer is 10^{11} to 10^{15} Ohm.cm.

31. (Not Further Amended) An intermediary transfer member according to Claim 29, wherein the volume resistivity of said third layer is 10^{10} to 10^{14} Ohm.cm

32. (Not Further Amended) An intermediary transfer member according to Claim 29, wherein the volume resistivity of said second layer is 10^{11} to 10^{15} Ohm.cm, and the volume resistivity of said third layer is 10^{10} to 10^{14} Ohm.cm.

33. (Not Further Amended) An intermediary transfer member according to any one of Claims 29-32, wherein said third layer has a thickness of 1-5 microns.

34. (Not Further Amended) An intermediary transfer member according to Claim 33, wherein said second layer has a thickness larger than that of said third layer.

35. (Not Further Amended) An intermediary transfer member according to Claim 33, wherein a plurality of the toner images are transferred onto said intermediary transfer member so that an overlaid toner image is formed thereon, wherein overlaid toner images are transferred onto the transfer material and said intermediate transfer member.

36. (Unamended) An intermediary transfer member according to Claim 29, wherein said intermediary transfer member is in the form of a belt.

37. (Unamended) An apparatus according to Claim 1, further comprising transfer means for applying a voltage to said first layer to electrostatically transfer the toner image to said intermediary transfer member from said image bearing member.

38. (Unamended) An apparatus according to Claim 1, wherein said first layer is coated with said second layer.

39. (Unamended) An apparatus according to Claim 1, wherein said second layer is coated with said third layer.

40. (Unamended) An apparatus according to Claim 1, wherein said first layer is coated with said second layer, and said second layer is coated with said third layer.

41. (Unamended) An apparatus according to Claim 1, wherein said first layer is an elastic layer.

42. (Unamended) An apparatus according to Claim 41, wherein said first layer is a rubber layer.

43. (Unamended) An apparatus according to Claim 29, wherein said first layer is coated with said second layer.

44. (Unamended) An apparatus according to Claim 29, wherein said second layer is coated with said third layer.

45. (Unamended) An apparatus according to Claim 29, wherein said first layer is coated with said second layer, and said second layer is coated with said third layer.

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46. (Amended) An image forming apparatus comprising:
image bearing means for bearing a toner image;
an intermediary transfer member, wherein the toner image is electrostatically transferred from said image bearing means onto said intermediary transfer member, and then transferred from said intermediary transfer member onto a transfer material,
wherein said intermediary transfer member includes a first layer and a second layer for receiving the toner image from said image bearing means, wherein said first layer is integrally coated with said second layer, and wherein said second layer has a volume resistivity smaller than that of said first layer.

47. (Unamended) An apparatus according to Claim 46, wherein the volume resistivity of said first layer is 10^{11} to 10^{15} Ohm.cm.

48. (Unamended) An apparatus according to Claim 46, wherein the volume resistivity of said second layer is 10^{10} to 10^{14} Ohm.cm.

49. (Unamended) An apparatus according to Claim 46, wherein the volume resistivity of said first layer is 10^{11} to 10^{15} Ohm.cm, and the volume resistivity of said second layer is 10^{10} to 10^{14} Ohm.cm.

50. (Unamended) An apparatus according to any one of Claims 46-49, wherein said second layer has a thickness of 1-5 microns.

51. (Unamended) An apparatus according to Claim 50, wherein said first layer has a thickness larger than that of said second layer.

52. (Unamended) An apparatus according to Claim 50, wherein a plurality of the toner images are transferred onto said intermediary transfer member so that an overlaid toner image is formed thereon, and the overlaid images are transferred from said intermediary transfer member onto the transfer material.

53. (Unamended) An apparatus according to Claim 52, wherein said image bearing means is provided with an image bearing member capable of bearing different color toner images.

54. (Unamended) An apparatus according to Claim 52, wherein said image bearing means is provided with a plurality of image bearing members for bearing different color toner images, respectively.

55. (Unamended) An apparatus according to Claim 50, further comprising transfer means for electrostatically transferring the toner image from said image bearing means onto said intermediary transfer member, wherein said transfer means applied a voltage to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

56. (Unamended) An apparatus according to Claim 55, wherein the voltage has a polarity opposite from a regular charging polarity of the toner.

57. (Unamended) An apparatus according to Claim 56, wherein said transfer means is provided with a voltage source for supplying the voltage.

58. (Unamended) An apparatus according to Claim 57, wherein said transfer means is provided with a roller contactable to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

59. (Unamended) An apparatus according to Claims 46, further comprising charging means for charging a surface of said image bearing means to a polarity which is the same as a regular charging polarity of the toner.

60. (Unamended) An apparatus according to Claim 46, wherein said intermediary transfer member is provided with a base layer, and wherein said first layer is provided on said base layer.

61. (Unamended) An apparatus according to Claim 60, wherein said base layer is elastic.

62. (Unamended) An apparatus according to Claim 61, wherein said base layer is a rubber layer.

63. (Unamended) An apparatus according to Claim 46, further comprising transfer means for electrostatically transferring the toner image from said image bearing means onto said intermediary transfer member, wherein said transfer means applied a voltage to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

64. (Unamended) An apparatus according to Claim 63, wherein the voltage has a polarity opposite from a regular charging polarity of the toner.

65. (Unamended) An apparatus according to Claim 64, wherein said transfer means is provided with a voltage source for supplying the voltage.

66. (Unamended) An apparatus according to Claim 65, wherein said transfer means is provided with a roller contactable to such a side of said intermediary transfer member as is opposite from a side thereof for receiving the toner image.

67. (Unamended) An apparatus according to Claim 46 or 64, further comprising charging means for charging a surface of said image bearing means to a polarity which is the same as a regular charging polarity of the toner.

68. (Unamended) An apparatus according to Claim 46, wherein said intermediary transfer member is in the form of a belt.

69. (Unamended) An apparatus according to Claim 68, further comprising supporting means for supporting said intermediary transfer member.

70. (Unamended) An apparatus according to Claim 69, wherein said supporting means is provided with a plurality of rollers.

71. (Unamended) An apparatus according to Claim 46, wherein a plurality of the toner images are transferred onto said intermediary transfer member so that an overlaid toner

image is formed thereon, and the overlaid images are transferred from said intermediary transfer member onto the transfer material.

72. (Unamended) An apparatus according to Claim 71, wherein said image bearing means is provided with an image bearing member capable of bearing different color toner images.

73. (Unamended) An apparatus according to Claim 71, wherein said image bearing means is provided with a plurality of image bearing members for bearing different color toner images, respectively.

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74. (Amended) An intermediary transfer member onto which a toner image is electrostatically transferred from image bearing means, wherein the toner image on said intermediary transfer member is transferred onto a transfer material, said intermediary transfer member comprising:

a first layer; and

a second layer for receiving the toner image from said image bearing means, wherein said first layer is integrally coated with said second layer, and wherein said second layer has a volume resistivity smaller than that of said first layer.

75. (Unamended) An intermediary transfer member according to Claim 74, wherein the volume resistivity of said first layer is 10^{11} to 10^{15} Ohm.cm.

76. (Unamended) An intermediary transfer member according to Claim 74, wherein the volume resistivity of said second layer is 10^{10} to 10^{14} Ohm.cm.

77. (Unamended) An intermediary transfer member according to Claim 74, wherein the volume resistivity of said first layer is 10^{11} to 10^{15} Ohm.cm, and the volume resistivity of said second layer is 10^{10} to 10^{14} Ohm.cm.

78. (Unamended) An intermediary transfer member according to any one of Claims 74-77, wherein said second layer has a thickness of 1-5 microns.

79. (Unamended) An intermediary transfer member according to Claim 78, wherein said first layer has a thickness larger than that of said second layer.

80. (Unamended) An intermediary transfer member according to Claim 78, wherein a plurality of the toner images are transferred onto said intermediary transfer member so that an overlaid toner image is formed thereon, wherein overlaid toner images are transferred onto the transfer material and said intermediate transfer member.

81. (Unamended) An intermediary transfer member according to Claim 74, wherein said intermediary transfer member is in the form of a belt.

82. (Unamended) An apparatus according to Claim 74, wherein said intermediary transfer member is provided with a base layer, and said base layer is coated with said first layer.

83. (Unamended) An apparatus according to Claim 82, wherein said base layer is an elastic layer.

84. (Unamended) An apparatus according to claim 83, wherein said base layer is a rubber layer.

REMARKS

There remains pending in this application Claims 1-14 and 16-84, of which Claims 1, 29, 46, and 74 are independent. No claims have been added or cancelled.

Independent Claim 1 is directed to an image forming apparatus which includes an intermediary transfer member while independent Claim 29 is directed to that intermediary transfer member. In each case the intermediary transfer member includes a first layer, a second layer on the first layer, and a third layer on the second layer, for receiving the toner image from the image bearing member, wherein a volume resistivity of the first layer is smaller than that of the third layer, and a volume resistivity of the third layer is smaller than that of the second layer.

Claims 1 and 29 each stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schlueter, Jr., et al. The rejection is respectfully traversed.